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09/997,085	11/29/2001	Robert N. Fuhrman	6208-024	6102

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EXAMINER	
NGUYEN, NGA B	
ART UNIT	PAPER NUMBER
3692	
MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/997,085	FUHRMAN ET AL.	
	Examiner	Art Unit	
	Nga B. Nguyen	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Amendment filed on September 10, 2007, which paper has been placed of record in the file.

2. Claims 1-37 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 1-37 have been considered but are not persuasive.

In response to the applicant arguments regarding to claims 31, 33 and 37 that Cherny does not disclose "identifying a plurality of factors associated with said at least two instruments", examiner submits that Cherny discloses in column 3, line 55 through column 4, line 20, in the adjusted variance-covariance matrix, *the ijth term and the jith term reflect the expected performance of the ith security relative to the jth security based on ordinary market relationships*, thus Cherny does concern with determining the comparability of at least two securities. Moreover, see column 4, line 20 through column 5, line 50, *the standard variance-covariance matrix is adjusted based on two factors: one factor on which adjustments are based is the relative probability of a professional liability triggering event occurring, and can be referred to as the triggering event index*, if the professional to be covered is an accounting firm, the liability triggering event might be an audit failure, for the two companies represented by the ijth and jith terms, it is possible to assign a factor for the relative probability of an audit failure occurring, etc...; *the second factor on which adjustments are based is the relative amount by which the*

market value of the two companies would be affected by a liability triggering event, and can be referred to as the market value index, for example, computing the market value index, if the total value of publicly held securities of the ijth company is ten times that of publicly held security of the jith company, one or both of the ijth and jith terms could simply be multiplied, or divided, by 10. Thus, in Cherny, the step of forming a variance-covariance matrix requires that the matrix include the values determined for each of the at least two factors (the triggering event index and the market value index) identified to be associated with the securities whose comparability is to be determined (the ijth term and the jith term reflect the expected performance of the ith security relative to the jth security based on ordinary market relationships), and the step of determining the comparability of the securities is based on the values of the at least two factors identified to be associated with the securities and the variance-covariance matrix formed. Therefore, ***Cherny does disclose "identifying a plurality of factors associated with said at least two instruments."***

In response to the applicant arguments regarding to claims 31, 33 and 37 that Cherny does not disclose "determining a value for each of said plurality of factors for each of said at least two instruments", examiner submits that Cherny discloses in column 4, line 60 through column 5, line 10, each x is a factor related to the security, and each x ranging from 1-10, 1 being the best and 10 being the worst. Therefore, ***Cherny does disclose "determining a value for each of said plurality of factors for each of said at least two instruments."***

In response to the applicant arguments regarding to claims 1-30, 32, and 34-36 that there is no motivation to modify Cherny's teachings, examiner submits that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Cherny discloses other securities related to the current value of a corporation (e.g., bonds, etc.) (column 3, lines 5-10), the securities will be shares of stock, but other securities could be used (column 3, lines 47-55). Cherny discloses the comparability of at least two stocks, Cherny also specified that bonds could be used, thus it is obvious to modify Cherny's to apply the comparability of at least two bonds.

In response to the applicant arguments regarding to claim 9 that Cherny does not disclose a "primary bond", examiner submits that the primary bond recited in the claim does not have any specific feature different to the other bonds, thus examiner treated the primary bond as a bond in comparing with the other bonds and applying the same rejection as claim 1 above.

In response to the applicant arguments regarding to claim 11, examiner treated the claimed invention as comparing a group of bonds with the other groups of bonds, similar as comparing a bond with the other bonds, and applying the same rejection as claim 1 above.

In response to the applicant arguments regarding to claims 20-29, examiner submits that Cherny discloses the steps of generating a factor vector, generating a covariance matrix, calculating a comparability, thus it is obvious in Cherny that Cherny's invention would contain "a factor vector generator", "a covariance matrix generator", "a comparability calculator" in order to perform the above steps.

In conclusion, for the reason set forth above, examiner decides to maintain the previous rejection and make this Office action FINAL.

4. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 31, 33, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Cherny, U.S. Patent No. 5,852,808.

Regarding to claim 31, Cherny discloses method for determining the comparability of at least two instruments, comprising the steps of:

identifying a plurality of factors associated with said at least two instruments (column 4, line 60-column 5, line 25);

determining a value for each of said plurality of factors for each of said at least two instruments (column 5, lines 50-65);

forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors (column 4, lines 20-47);

determining the comparability of said at least two instruments based on said values for each of said at least two bonds and said covariance matrix (column 4, lines 1-10, e.g., the covariance of a steel company and an automobile company might be about 0.2, the covariance of a bus company and an airline would be –1.0).

Regarding to claim 33, Cherny further discloses wherein said market activity are price changes in the market for a previous period of time (column 5, lines 42-50).

Regarding to claim 37, Cherny further discloses tuning said covariance matrix by adjusting said weighting factor for at least one of said plurality of factors (column 4, lines 20-30).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-30, 32, and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherny, U.S. Patent No. 5,852,808.

Regarding to claim 1, Cherny discloses method for determining the comparability of at least two stocks, comprising the steps of:

identifying a plurality of factors associated with said at least two stocks (column 4, line 60-column 5, line 25);

determining a value for each of said plurality of factors for each of said at least two stocks (column 5, lines 50-65);

forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors (column 4, lines 20-47);

determining the comparability of said at least two stocks based on said values for each of said at least two stocks and said covariance matrix (column 4, lines 1-10, e.g., the covariance of a steel company and an automobile company might be about 0.2, the covariance of a bus company and an airline would be –1.0).

Cherny does not disclose comparing two bonds. However, bond is a well-known financial instrument. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Cherny's to replace "a stock" by "a bond", for the purpose of providing more efficiency in comparing two bonds.

Regarding to claim 2, Cherny further discloses wherein said values for said plurality of factors for each of said at least two bonds relate to sector information, bond rating information, a duration and a time to maturity (column 4, line 60-column 5, line 25).

Regarding to claim 3, Cherny does not disclose wherein said values relate to an issuer country, a put schedule, a call schedule, a sinking fund schedule, a coupon rate and an asset swap spread. However, those factors are well known in the art of bond's factors. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Cherny's to incorporate the well-known features above, for the purpose of providing more efficiency in comparing two bonds based on the values of relate to an issuer country, a put schedule, a call schedule, a sinking fund schedule, a coupon rate and an asset swap spread.

Regarding to claim 4, Cherny further discloses wherein said market activity are price changes in the market for a previous period of time (column 5, lines 42-50).

Regarding to claim 5, Cherny does not disclose wherein said period of time is in the range of one week to 1 year. However, obtaining the price changes of a bond in a period of time ranging from one week to 1 year is well known in the art. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Cherny's to incorporate the well-known feature above, for the purpose of providing more efficiency in comparing two bonds based on the price changes of a bond in a period of time ranging from one week to 1 year.

Regarding to claims 6-7, Cherny does not disclose wherein the step of determining the comparability includes the step of: determining the comparability according to the specific formulas recited in the claims. However, determining the comparability according to the specific formulas recited in the claims is well known in the art. In this case, the formulas recited in the claims depend on: the values for plurality of factors for a first of bond, the values for plurality of factors for a second of bond and the covariance matrix. Cherny discloses the values for plurality of factors for a first of bond, the values for plurality of factors for a second of bond and the covariance matrix, thus, it is obvious in Cherny to create any specific formulas depend on those values. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Cherny's to incorporate the well-known features above, for the purpose of providing more efficiency in comparing two bonds.

Regarding to claim 8, Cherny further discloses tuning said covariance matrix by adjusting said weighting factor for at least one of said plurality of factors (column 4, lines 20-30).

Claim 9 contain similar limitations found in claim 1 above, therefore, is rejected by the same rational.

Regarding to claim 10, Cherny further discloses ordering each bond in said list of bonds according to the comparability of each bond in said list of bonds to said primary bond (column 9, lines 10-40).

Claim 11 contain similar limitations found in claim 1 above, therefore, is rejected by the same rational.

Claims 12-19 contain similar limitations found in claims 1-8 above, therefore, are rejected by the same rationale.

Claims 20-29 are written in apparatus and contain similar limitations found in claims 1-8 above, therefore, are rejected by the same rationale.

Regarding to claim 30, Cherny further discloses wherein said comparability calculator executes on a computer system and further comprising an access device in communications with said computer system for issuing a comparability request to said comparability generator (figure 1 and column 10, lines 40-50, computer system 11).

Regarding to claim 32, Cherny further discloses wherein said instruments are equities and said values for said plurality of factors for each of said at least two instruments relate to sector information, volatility, profitability measures, market capitalization (column 4, line 60-column 5, line 25). Cherny does not disclose price-to-earnings ratio. However, price-to-earnings ratio is a well-know factor of a stock. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Cherny's to incorporate the well-known feature above, for

the purpose of providing more efficiency in comparing two stocks based on price-to-earnings ratio.

Claims 34-36 contain similar limitations found in claims 5-7 above, therefore, are rejected by the same rationale.

Conclusion

9. Claims 1-37 are rejected.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (571) 272-6796. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3600.

11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communication intended for entry),

or

(571) 273-0325 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Knox building, 501 Dulany Street, Alexandria, VA, First Floor (Receptionist).

Nga Nguyen

NGA NGUYEN
PRIMARY EXAMINER

November 20, 2007